IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
Art Unit: 2145   Examiner: Patrice L. Winder

In Re:	Dan Kikinis
Case:	P1544D1
Serial No.:	09/911,945
Filed:	July 23, 2001
Subject:	Enhanced Integrated Data Delivery System

Commissioner for Patents
P.O. Box 1450
Alexandria VA 22313-1450

Dear Sir:

Response to Notice of

Non-Compliant Appeal Brief

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- 2 -

Remarks

Applicant received a Notice of Non-Compliant Appeal Brief mailed on 08/11/2006. The applicant has corrected the items listed on the Notice, and a new copy of the Appeal Brief, now compliant, accompanies this paper.

If there are any extensions of time required beyond an extension specifically petitioned and paid with this response, such extensions are hereby requested. If there are any fees due beyond any fees paid by check with this response, authorization is given to deduct such fees from deposit account 50-0534.

Respectfully Submitted,
Dan Kikinis

By /Donald R. Boys/
Donald R. Boys
Reg. No. 35,074

Central Coast Patent Agency
3 Hangar Way, Suite D
Watsonville, CA 95076
831-768-1755

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In re:	Dan Kikinis		
Case:	P1544D1	Application No.: 09/911,945	Filing date: 07/23/2001
Art Unit:	2145	Examiner: Patrice L. Winder	
Subject:	Enhanced Integrated Data Delivery System		

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Attention: Patrice L. Winder, Examiner
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

INVENTOR: Dan Kikinis
CASE: P1544D1
SERIAL NO.: 09/911,945   **GROUP ART UNIT:** 2145
FILED: 07/23/2001   **EXAMINER:** Winder, Patrice L
SUBJECT: Enhanced Integrated Data Delivery System

PARTY IN INTEREST: All inventions in the disclosure in the present case are assigned to or assignable to: Lextron, Inc.

Commissioner for Patents
PO Box 1450
Alexandria, Va 22313-1450

Dear Sir:

APPEAL BRIEF

- 2 -

1.0   Real Party in Interest

The real party in interest is Lextron, Inc.

2.0   Related Appeals and Interferences

This is an appeal from the Office Action of the Examiner dated May 05, 2006, rejecting claims 8-10, 13 and 14, the only pending claims in the application. There are no related appeals of the claims in this case or interferences in the instant case.

3.0   Status of the Claims

Following is the status of all claims in the instant case:

1-7.   Cancelled

8.   Previously presented- appealed in this brief; independent.

9.   Previously presented- appealed in this brief; dependent.

10.   Original - appealed in this brief; dependent.

11-12. Cancelled

13.   Previously presented- appealed in this brief; independent.

14.   Original - appealed in this brief; dependent.

4.0   Status of Amendments

No amendments have been filed subsequent to the rejection of claims 8, 9, 10, 13 and 14, the subjects of this appeal.

5.0   Summary of the Claimed Subject Matter

- 3 -

Following is a concise explanation of the subject matter defined in each of the two standing independent claims including their dependent claims.

5.1 Independent system claim 8

8. A broadband data transmission system (pg. 8, lines 8-9) comprising:

a high priority queue (Fig. 2, 67; pg. 10 lines 1-7) reserved for data entities requiring that data entities be transmitted in a successive fashion at or above a minimum rate to insure no interruptions;

a lower priority data entity queue (Fig. 2, 69); and

control routines (pg. 8, lines 5-9; pg. 8, line 22) adapted for dividing large data entities in the lower priority queue into multiple smaller data entities of a size that may be interspersed with the transmission of data entities from the high priority queue without causing the rate of transmission of the high priority entities to fall below the minimum rate (pg. 13, line 11 to pg. 14, line 2).

In summary, the above claim provides a system which inserts and transmits data of a lower priority interspersed among data packets of higher priority data which must be transmitted at a constant rate to insure that degradation of the higher priority data not occur.

5.2 dependent claim 9.

9. (Previously presented) The broadband data transmission system of claim 8 wherein the transmission system comprises a satellite transmission system (pg. 6, lines 1-4).

5.3 dependent claim 10.

10. (Original) The broadband data transmission system of claim 8 wherein, upon dividing a large data entity into multiple smaller data entities for transmission, the

- 4 -

control routines prepare a division key for transmission to a user, the division key
adapted to aid in reassembling the multiple data entities back into the undivided larger
data entity (pg. 14, lines 3-10).

*Claim 10 provides for a division key enabling the data receiving user to reassemble the
data from the lower priority queue of claim 8, after it has been divided into smaller data
entities and sent interspersed in the higher priority data and received by the user.*

5.4 independent method claim 13.

13. (Previously presented) In a broadband data transmission system (pg. 8, lines 8-9)
having a high priority queue reserved for first data entities requiring that the first data
entities be transmitted in a successive fashion at or above a minimum rate (pg. 13,
lines 11-24,) a method for transmitting a second data entity comprising steps of:

(a) dividing the second data entity into multiple portions, each portion small
enough to ensure that it may be transmitted interspersed with first data entities
without violating the minimum rate for the first data entities (pg. 13, line 25 to pg. 14,
line 2); and

(b) transmitting the divided portions of the second data entity interspersed with
transmission of first data entities, without causing interruption in transmission of the
first data entities.

*In summary, the method of claim 13 provides a step for dividing data entities from
a lower priority queue into a smaller size so they may be interspersed and transmitted in
the second step among data entities being transmitted at a constant rate from a higher
priority queue in a manner as to not interrupt the rate of transmission from the higher
priority queue.*

5.5 dependent claim 14.

-5-

14. (Original) The method of claim 13 further comprising a step for preparing a division key with information about the facts of division of the second entity, and a step for causing the division key to be transmitted to a user (pg. 14, lines 3-10).

Claim 14 provides for a division key enabling the data receiving user to reassemble the data from the lower priority queue of claim 8, after it has been divided into smaller data entities and sent interspersed in the higher priority data and received by the user.

6.0   Grounds of Rejection to be Reviewed on Appeal

6.1   Claims 8 and 13 are rejected on the merits under 35 U.S.C. 102(e) as being anticipated by Mendelson et al (USPN 5,754,783) hereinafter Mendelson.

6.2   Dependent claims 10 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mendelson in view of Liebowitz et al. (US 5,812,545) hereinafter Liebowitz.

7.0   Argument

Following is a presentation of arguments against the rejection put forth by the Examiner, and the appellant's response.

7.1   Claims 8 and 13 rejected under 35 U.S.C. 102(e) as being anticipated by Mendelson et al (USPN 5,754,783) hereinafter Mendelson.

The Examiner's Arguments:

The Examiner provides the art of Mendelson to teach independent claim 8 in its entirety and method claim 13. The Examiner states that Mendelson taught a broadband data transmission system (abstract) comprising:

- 6 -

a high priority queue reserved for data entities requiring that data entities be transmitted in a successive fashion at or above a minimum rate to insure no interruptions (column 2, lines 50-53, 63-67, column 6, lines 50-54);

a lower priority data entity queue (column 6, lines 50-54); and

control routines adapted for dividing large data entities in the lower priority queue into multiple smaller data entities of a size that may be interspersed with the transmission of data entities from the high priority queue without causing the rate of transmission of the high priority entities to fall below the minimum rate (column 6, lines 23-26, column 8, lines 1-19).

The Examiner continues that <u>Mendelson does not specifically teach preparing a division key for transmission to a user, the division key adapted to aid in reassembling the multiple data entities back into the undivided larger data entity</u>. However, he states that Liebowitz taught preparing a division key for transmission to a user, the division key adapted to aid in reassembling the multiple data entities back into the undivided larger data entity (column 4, lines 58-63). So the Examiner's argument is that it would have been obvious to one of ordinary skill in the art at the time the invention was made that incorporating Liebowitz's division key in Mendelson's system for interleaving secondary data would have increased system robustness. The motivation would have been to reduce the complexity associated with decoding the transmitted stream.

Appellant's response:

Firstly appellant points out the burden placed on the appellant when an Examiner rejects claims merely citing page and line numbers with no added comment actually relating the cited teaching with appellant's claim limitations. Commonly the teachings do not relate exactly, requiring at least some explanation from the Examiner as to why he/she believes the teachings are related. The Examiner responds to the system claim, 8, alone when referencing Mendelson and does not consider the method claim and steps provided in appellant's invention which should be considered in the order provided when presenting a proper rejection of anticipation.

- 7 -

Appellant argues that Mendelson fails to teach a system for transmitting packets on a broadband network, as claimed. Mendelson teaches a system for formatting an MPEG video stream prior to transmission on the network. Mendelson teaches a system for formatting a transport stream 200 with a compression engine, to be delivered over network 130. Appellant's invention is not limited by software and takes place at the level of actual packet transmission on the network, not inside the compression step, as in Mendelson.

Appellant argues that Mendelson does not deal with the problem of the need to send additional real data to a user interspersed in a broadband transmission requiring minimum bandwidth so transmission is not interrupted. Mendelson teaches padding a transmission stream created with an MPEG compression software in order to meet minimum bandwidth in a constant bit rate (CBR) stream. A standard prior art CBR encoded MPEG transport stream includes packets filled with padding bits. The padding packets compensate for differences in compression deficiencies for various portions of the program (col. 6, lines 8-17). In Mendelson's invention, the padding packets are filtered out and replaced with content of a limited size and type related to the video content (Figs 1 and 3). In the event that content is not available to fill the space left from removing padding packets, additional padding packets are provided instead. In contrast, appellant's invention teaches dividing the second data entity into multiple portions, each portion small enough to ensure that it may be transmitted interspersed with first data entities without violating the minimum rate for the first data entities. These teachings of Mendelson do not read on appellant's invention, as claimed, nor does Mendelson's invention accomplish the same purpose.

Mendelson filters out the padding packets from the incoming MPEG video stream (Fig. 4) and puts the hard content in primary content buffer 412, and generates content to replace the padding packets which is placed in secondary content buffer 414. The secondary content is then interleaved in a linear manner into a data stream generated from the primary content buffer 412 in order to maintain the constant bit rate. The relative rate of insertion is periodically adjusted for each PCR (program clock reference) detected. For

- 8 -

example, two bytes of secondary content needs to be supplied for each four bytes of primary content to maintain the constant bit rate 604. Appellant points out that the PCR's are determined when receiving and filtering content from original MPEG received, and must be strictly adhered to when formatting for secondary content. Mendelson does not resize data packets from a lower priority queue to insert in a data stream from a higher priority queue in order to send needed data to a user receiving the data stream from the higher priority queue.

Appellant describes in the background portion of the specification that the present invention is an alternative to compression because compression of files is sometimes used as a technique to enable faster download times, but this expedient requires the user to have the appropriate software to decompress that particular file type. Often different software applications must be purchased by the user in order to decompress differing file types and so on. Many of these improvements cost the user in terms of the money and time spent to install and operate them.

Alternatively, appellant teaches a system which transmits autonomous packets of data resized to a specific size available in between transmission bursts of time sensitive data (video) in a manner as to not disrupt the transmission of the time sensitive data. In appellant's invention any type of data of any size can be sent because it is not inserted within video content packets, as in Mendelson.

Appellant argues that Mendelson is limited as to type of data and the size is restricted to the size of the padding packets as originally received in the MPEG. Further, appellant argues that the secondary content cannot be autonomous from the primary content because Mendelson does not teach a facility at the receiver's end for filtering out the secondary content. In Mendelson the secondary content must be video related text or a stationary graphic which is viewed along with the video stream at the user's end.

Appellant respectfully disagrees with the Examiner that Mendelson teaches dividing large data entities in the lower priority queue into multiple smaller data entities of a size that may be interspersed with the transmission of data entities from the high priority queue without causing the rate of transmission of the high priority entities to fall

- 9 -

below the minimum rate. The size of packets in Mendelson is dictated by the detected PCRs upon receiving MPEG content from providers prior to resending. Mendelson actually pads packets containing video content and does not resize existing packets to fit in the satellite transmission, as claimed.

Appellant teaches a system having a satellite link capable of sending data at 20 Mbps. A file of 80 Mb arrives at server 29, and the APPP driver determines the best route is the satellite path. Now assume that queue 67 is reserved for video, and to provide uninterrupted video at the user's PC, a packet must be sent every fraction of a second. If the 80 Mb file is queued in queue 69, when it is sent, it will tie up the satellite transmission for about four seconds. Assuming packets need to be sent during this interim from queue 67 for video (or any other type of real-time data stream) the four second transmission of a single packet will cause an interruption in the video stream at the user's end.

In an embodiment of the invention, packets of a size large enough to cause such an interruption as that described above are divided into packets small enough to be sent in between bursts from queue 67, so the larger file may be transmitted without disrupting the video stream. The size to cause such a division and the dividing factor will be determined by such factors as the capacity of the satellite link and the time that may be available for transmission between video packet transmissions.

Appellant argues that the art of Mendelson can never send a large file in need of resizing because of the PCR limitations of the original received MPEG video stream only allows secondary data of a size equaling the difference between VBR and CBR, and packets are created and generated for this specific size, existing packets are not resized.

Appellant's invention provides a unique and valuable addition to the art of transmitting different data types in the same data steam which deserves acceptance to allowance by the board.

- 10 -

7.2   Claims 10 and 14 rejected under 35 U.S.C. 103(a) as unpatentable over Mendelson in view of Liebowitz et al. (US 5,812,545) hereinafter Liebowitz.

<u>The Examiner's Arguments:</u>

Regarding dependent claims 10 and 14, the Examiner argues that Mendelson taught upon dividing a large data entity into multiple smaller data entities for transmission, the control routines enable reassembling the multiple data entities back into the undivided larger data entity (column 1, lines 37-38, column 2, lines 12-15).

<u>Appellant's response:</u>

Regarding the 103 rejection of claims 10 and 14, appellant disagrees with the Examiner's combining of Mendelson and Liebowitz. Appellant's specification clearly recites that APPP driver 59 performs an additional function of slicing large data packets and sending reduced-sized packets via the satellite path interspersed between transmission bursts of the time sensitive data. Therefore, the 103 rejection regarding Liebowitz fails as Mendelson does not resize packets, therefore needing a key. Appellant argues that there is absolutely no motivation in the art provided by the Examiner to provide a division key because there is no need in Mendelson to re-assemble resized padding packets at the receiver's end. The reasoning for the combination cannot be made in this case without the Examiner's hindsight knowledge of the teachings of appellant's invention. Therefore, the obviousness rejection fails.

Further to the above, the appellant believes claims 8 and 13 are patentable, as argued above, and therefore dependent claims 10 and 14b are patentable as wee, at least as depended from a patentable claim. Claim 9 is also patentable by the same rationale.

- 11 -

8.0   Claims Appendix

The claims involved in the appeal are:

1-7. (Canceled)

8. (Previously presented) A broadband data transmission system comprising:

a high priority queue reserved for data entities requiring that data entities be transmitted in a successive fashion at or above a minimum rate to insure no interruptions;

a lower priority data entity queue; and

control routines adapted for dividing large data entities in the lower priority queue into multiple smaller data entities of a size that may be interspersed with the transmission of data entities from the high priority queue without causing the rate of transmission of the high priority entities to fall below the minimum rate.

9. (Previously presented) The broadband data transmission system of claim 8 wherein the transmission system comprises a satellite transmission system.

10. (Original) The broadband data transmission system of claim 8 wherein, upon dividing a large data entity into multiple smaller data entities for transmission, the control routines prepare a division key for transmission to a user, the division key adapted to aid in reassembling the multiple data entities back into the undivided larger data entity.

11-12. (Canceled)

13. (Previously presented) In a broadband data transmission system having a high priority queue reserved for first data entities requiring that the first data entities be transmitted in a successive fashion at or above a minimum rate, a method for transmitting a second data entity comprising steps of:

- 12 -

(a) dividing the second data entity into multiple portions, each portion small enough to ensure that it may be transmitted interspersed with first data entities without violating the minimum rate for the first data entities; and

(b) transmitting the divided portions of the second data entity interspersed with transmission of first data entities, without causing interruption in transmission of the first data entities.

14. (Original) The method of claim 13 further comprising a step for preparing a division key with information about the facts of division of the second entity, and a step for causing the division key to be transmitted to a user.

- 13 -

9.0   **Evidence Appendix**

No evidence other than the arguments and facts presented in this brief is provided.

10.0   **Related Proceedings Appendix**

No copies provided, because these claims have never been appealed.

Respectfully Submitted,
Dan Kikinis

By /*Donald R. Boys*/
Donald R. Boys
Reg. No. 35,074

Central Coast Patent Agency
3 Hangar Way, Suite D
Watsonville, CA 95076
831-768-1755

Notification of Non-Compliant Appeal Brief (37 CFR 41.37)	Application No. 09/911,945	Applicant(s) KIKINIS, DAN	
	Examiner PATRICE WINDER	Art Unit 2145	

—The MAILING DATE of this communication appears on the cover sheet with the correspondence address—

The Appeal Brief filed on <u>26 July 2006</u> is defective for failure to comply with one or more provisions of 37 CFR 41.37.

To avoid dismissal of the appeal, applicant must file an amended brief or other appropriate correction (see MPEP 1205.03) within **ONE MONTH or THIRTY DAYS** from the mailing date of this Notification, whichever is longer. **EXTENSIONS OF THIS TIME PERIOD MAY BE GRANTED UNDER 37 CFR 1.136.**

1. ☐ The brief does not contain the items required under 37 CFR 41.37(c), or the items are not under the proper heading or in the proper order.

2. ☒ The brief does not contain a statement of the status of all claims, (e.g., rejected, allowed, withdrawn, objected to, canceled), or does not identify the appealed claims (37 CFR 41.37(c)(1)(iii)).

3. ☐ At least one amendment has been filed subsequent to the final rejection, and the brief does not contain a statement of the status of each such amendment (37 CFR 41.37(c)(1)(iv)).

4. ☐ (a) The brief does not contain a concise explanation of the subject matter defined in each of the independent claims involved in the appeal, referring to the specification by page and line number and to the drawings, if any, by reference characters; and/or (b) the brief fails to: (1) identify, for each independent claim involved in the appeal and for each dependent claim argued separately, every means plus function and step plus function under 35 U.S.C. 112, sixth paragraph, and/or (2) set forth the structure, material, or acts described in the specification as corresponding to each claimed function with reference to the specification by page and line number, and to the drawings, if any, by reference characters (37 CFR 41.37(c)(1)(v)).

5. ☐ The brief does not contain a concise statement of each ground of rejection presented for review (37 CFR 41.37(c)(1)(vi))

6. ☒ The brief does not present an argument under a separate heading for each ground of rejection on appeal (37 CFR 41.37(c)(1)(vii)).

7. ☐ The brief does not contain a correct copy of the appealed claims as an appendix thereto (37 CFR 41.37(c)(1)(viii)).

8. ☐ The brief does not contain copies of the evidence submitted under 37 CFR 1.130, 1.131, or 1.132 or of any other evidence entered by the examiner **and relied upon by appellant in the appeal**, along with a statement setting forth where in the record that evidence was entered by the examiner, as an appendix thereto (37 CFR 41.37(c)(1)(ix)).

9. ☐ The brief does not contain copies of the decisions rendered by a court or the Board in the proceeding identified in the Related Appeals and Interferences section of the brief as an appendix thereto (37 CFR 41.37(c)(1)(x)).

10. ☒ Other (including any explanation in support of the above items):

   <u>2. Must identify the status of all claims.</u>
   <u>6. Each ground of rejection must be argued under it's own heading.</u>

Tracey M Young
Patent Appeals Specialist